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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/647,913

08/25/2003

Yisong Yu

91464/JLT

2332

1333 7590 05/03/2007
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EXAMINER

LEE, SIN J

ART UNIT

PAPER NUMBER

1752

MAIL DATE

DELIVERY MODE

05/03/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/647,913	Applicant(s) YU ET AL.	
	Examiner Sin J. Lee	Art Unit 1752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 45-51, 53-59, 69, 70, 72-75 and 77 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 6-10, 12, 14, 16-22, 24, 26-32, 34, 36-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continuation of Disposition of Claims: Claims pending in the application are 1,2,4,6-10,12,14,16-22,24,26-32,34,36-41,45-51,53-59,69,70,72-75 and 77.

DETAILED ACTION

1. Claims 3, 5, 11, 13, 15, 23, 25, 33, 35, 42-44, 52, 60-68, 71 and 76 are canceled claims.
2. In view of the amendment February 8, 2007, previous 102(b) rejection over Kamiyama et al (JP'260) is hereby withdrawn as the reference does not teach or suggest the use of the present substance capable of converting radiation into heat.
3. The following rejections are made non-final due to the new ground.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 4, 6-10, 12, 14, 16-22, 24, 26-32, 34 and 36-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuwahara et al (US 6,252,003 B1).

Kuwahara teaches (see abstract) a polymer emulsion, which contains polymer particles having core-parts and shell-parts; which is composed of *chitosan* (which contains amino group – see col.2, lines 46-58) and a *polymer of organic acid* having a reactive vinyl group or a salt thereof (as constituent component of shell-part) and composed of a polymer of hydrophobic monomers (as constituent components of core-part). Kuwahara also teaches a coloring agent particle, which contains the polymer particle in the above-mentioned polymer emulsion and a coloring material (which is present in the shell and/or core-part). More specifically, in his Example 12 (see also

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Example 11) Kuwahara teaches coloring agent particles, which are formed of spherical particles having (i) outer shell layer made of chitosan and methacrylic acid polymer; (ii) the core-part made of a polymer of *hydrophobic* 2-ethylhexyl acrylate and (iii) Red No. 202 (pigment particles enclosed in the core-shell particles). Kuwahara also teaches the equivalence of Red No.202 and carbon black as his coloring material (see col.8, lines 50-64). Therefore, because of this teaching of equivalency, it would have been obvious to one skilled in the art to use carbon black (present substance capable of converting radiation into heat) as the pigment particles in Kuwahara's Example 12. Also, Kuwahara teaches the equivalence of 2-ethylhexyl acrylate, butyl (meth)acrylate and lauryl (meth)acrylate as the hydrophobic monomers (see col.3, lines 31-41). Therefore, it would have been obvious to one skilled in the art to have the core-part made of a polymer of hydrophobic butyl (meth)acrylate or lauryl (meth)acrylate (present thermally softenable hydrophobic polymer) in Kuwahara's Example 12. Therefore, Kuwahara's teachings render obvious present inventions of claims 1, 2, 4, 6-10, 12, 14, 16-22, 24, 26-32, 34, 36-41 (Kuwahara's chitosan teaches present hydrophilic polymer and his methacrylic acid polymer teaches present bonding agent as well as present monomer having a carboxylic group. Since Kuwahara's coloring agent particles (as discussed above) teach present hydrophilic polymer particles, it is the Examiner's position that his coloring agent particles would inherently be radiation-sensitive and ineluable in aqueous media when coated and dried and that his coloring agent particles would inherently be hydrophilic when coated and dried but would become hydrophobic under the action of heat as presently recited).

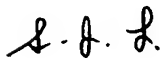
Allowable Subject Matter

6. Claims 45-51, 53-59, 69, 70, 72-75 and 77 are allowed. Kuwahara does not teach or suggest present *lithographic printing* precursor.

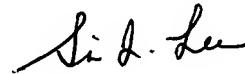
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sin J. Lee whose telephone number is 571-272-1333. The examiner can normally be reached on Monday-Friday from 9:00 am EST to 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



S. Lee
April 30, 2007



**SIN LEE
PRIMARY EXAMINER**